

REMARKS

The applicant has carefully considered the Office action dated May 8, 2007. By way of this Response, claims 1, 15, 17, 18, 21, 28, 38, 41, and 55 have been amended, and claims 13, 14, 34, 35, 54, and 62-64 have been cancelled without prejudice to their further prosecution. In view of the following, it is respectfully submitted that all pending claims are in condition for allowance and favorable reconsideration is respectfully requested.

The Office action requests certain information. The applicant will attempt to answer the inquiries in the order presented in the Office action.

A(1) Features of Article listed As C04 in the IDS Contributed By Daly, Wang or Shen

The Office action requests an explanation as to why the publication Entropy-base Characterization of Program Phase Behaviors listed as Reference C04 in the IDS of June 1, 2006 identifies Joe Daly, Hong Wang and John Shen as authors, whereas Mingqiu Sun is the only named inventor for this application. In this regard, the Office is respectfully reminded that an inventor and an author are not the same thing. Specifically, an inventor is anyone that contributes to the conception of the invention. As discussed in the MPEP:

The definition for inventorship can be simply stated: "The threshold question in determining inventorship is who conceived the invention. *Unless a person contributes to the conception of the invention, he is not an inventor.* ... Insofar as defining an inventor is concerned, reduction to practice, *per se*, is irrelevant [except for simultaneous conception and reduction to practice, *Fiers v. Revel*, 984

F.2d 1164, 1168, 25 USPQ2d 1601, 1604-05 (Fed. Cir. 1993)]. One must contribute to the conception to be an inventor.” *In re Hardee*, 223 USPQ 1122, 1123 (Comm’r Pat. 1984). See also *Board of Education ex rel. Board of Trustees of Florida State Univ. v. American Bioscience Inc.*, 333 F.3d 1330, 1340, 67 USPQ2d 1252, 1259 (Fed. Cir. 2003) (“Invention requires conception.”

MPEP § 2137.01 (emphasis added). In contrast, an author is someone who prepares or assists in preparing a paper. Mr. Sun, the sole inventor of this application, has confirmed that none of Mr. Daly, Mr. Hong or Mr. Shen contributed to the conception of the invention or to the drafting of the invention disclosure materials for this application, but instead assisted on the subsequent drafting of the noted publication. Thus, none of Mr. Daly, Mr. Hong or Mr. Shen contributed to the conception of any element of any claim of this patent application and, thus, none of those gentlemen are inventors for this application. The Examiner’s attention is respectfully directed to the citation in MPEP § 2137 to *Ex parte Kusko*, 215 USPQ 972, 974 (Bd. App. 1981) (The relative dates of the events are important in determining derivation; a publication dated more than a year after applicant’s filing date that merely lists as literary coauthors individuals other than applicant is not the strong evidence needed to rebut a declaration by the applicant that he is the sole inventor.).

An identification of which author contributed which word(s) of the noted publication is not readily available. It is noted, however, that all features of the invention were contributed solely by Mr. Sun. Any portion of the cited publication that is identical to a portion of the specification as noted in the action, was contributed solely by Mr. Sun.

**A(2) Copies of Other Publications Authored By
Mr. Sun That Describe The Claimed Subject Matter**

There are no other publications authored by Mr. Sun that describe the claimed subject matter. The applicant already complied with the duty of disclosure under this request by citing Reference C04 noted above. However, the Examiner's attention is directed to the related patent applications naming Mr. Sun as an inventor specifically identified below.

**A(2) Copies of Other Publications Authored By
Daly, Wang or Shen That Describe The Claimed Subject Matter**

The applicant is unaware of any such publication.

B. Claim Features Identified In Affidavits

At the outset, the applicant notes that there appears to be confusion as to the invention disclosures attached as Exhibits to the 131 declaration filed in this case. To clarify, Exhibit A of the 131 declaration is a redacted copy of the invention disclosure upon which this application is based. Exhibit B is a redacted copy of the invention disclosure on which the *parent* to this CIP application is based. Thus, it is the applicant's understanding that the Examiner is only interested in the advantages identified in section 2 of Exhibit A, the invention disclosure corresponding to the instant application. If additional information is requested, the Examiner is invited to contact the undersigned and such information will be provided.

Section 2 of Exhibit A states:

Our approach has similarity to what is described as Markov prefetcher in literature. However, the similarity is limited at predicting the next state only (see the framework disclosure for explanation). ***The biggest difference is in our association of a profile of memory references to a program state.*** This allows effective prefetching of clustered memory references. Since our state depth is typically in thousands of instructions, it gives an adequate time window for prefetching to work.

Another advantage of our approach is in the entropy calculation that is a systematic measure of transitional uncertainty. Besides the insight it provides as a transactional demarcation mark, ***it enables additional prefetching policies*** such as 3c and 3d listed in section 1.

(emphasis added). Thus, there are two advantages identified in section 2 of Exhibit A. The first advantage, namely, the association of memory references to program states is present in all of the claims as originally filed and as presented in this amendment (see, for example, claim 1 which recites “associating memory profiles with respective ones of the program states”). The second advantage, namely, prefetching based on entropy values, was originally present in at least claims 13-18, 21-25, 34-35, 38-40, 53-57, and 60, and is now present in all of the pending claims.

Applicants traverse the statement in the Office action that the claims as originally filed did not include any of the improvements cited in the Exhibits to the 131 Declaration. As noted above, all of the claims as originally filed included at least the association of memory references to program states noted in the invention disclosure for this application. Again, it appears that the Examiner may be incorrectly focusing on Exhibit B, the invention disclosure for the parent to this application, in making this incorrect assertion. Since the

function of the parent application is to broadly claim the invention disclosed in Exhibit B, it is, of course, true that not all of the claims of the instant application recite the advantages from the invention disclosure of the parent application; although at least some of those advantages are recited in some of the dependent claims as pointed out in the voicemail left on April 11, 2007.

Additional Disclosure Information

In the parent to this application (serial No. 10/424,356), the Examiner has alleged that the Sherwood reference sworn behind in the 131 declaration filed in the instant application has an earlier publication date than June of 2003. Applicant had contacted Mr. Sherwood, the author of that publication, to determine if the earlier alleged date was accurate, and, as shown in the file history of the parent application, the author indicated that the correct publication date is June of 2003. However, in the final Office action issued in the parent application on May 16, 2007, the Examiner alleges that other evidence supports a publication date in June of 2002. The applicant believes the Examiner of the parent application is mistaken. As shown in Exhibit 1 attached hereto, the Internet Archive Wayback Machine (<http://www.archive.org/index.php>) demonstrates that only an abstract of the Sherwood article was present on the Internet as of November 19, 2002. In particular, as shown in Exhibit 2 attached hereto (i.e., the printout from the November 19, 2002 link of Exhibit 1), only a single paragraph corresponding to the Sherwood reference could be accessed as of the November 19, 2002. Exhibit 3, which is the printout from the July 9, 2003 link of Exhibit 1 is identical to the November 19, 2002 information. Therefore, at most the abstract of the Sherwood article attached hereto as Exhibit 2 is prior art. As

shown in the 131 declaration submitted in this application, the full Sherwood article is not prior art to this application.

In view of the foregoing, the Examiner is encouraged to consider Exhibit 2 as prior art in evaluating the pending claims. However, it is respectfully submitted that Exhibit 2 does not teach or suggest the combinations recited in the claims pending herein.

As mentioned above, there are several related applications to the instant application. In particular, in addition to the parent application noted above (i.e., 10/424,356), Intel, the assignee of these applications, has also filed US Application Serial No. 10/608,683 (now US Patent 7,043,608) and US Application Serial No. 10/833,762. Applicants have cited or are citing herewith all references cited in the corresponding related applications.

Summary Of Interview

As noted in the Interview Summary, the Examiner telephoned the undersigned and requested an identification of which claims corresponded to the sliding window and exponential decay features of the invention disclosure for the parent application (i.e., Exhibit B to the 131 declaration). The undersigned returned the Examiner's call by identifying claims 11 and 16 as respectively related to those features.

In view of the foregoing, it is respectfully submitted that all pending claims are in condition for allowance.

If the Examiner is of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is invited to contact the undersigned at the number identified below.

Respectfully submitted,

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